

Tentative Order re Motion for Summary Judgment for Non-Infringement

Defendants Sonic Solutions (“Sonic”) and Napster, Incorporated (“Napster”) move for summary judgment of non-infringement of Plaintiff Optima Technology Corporation’s (“Optima”) U.S. Patent No. 5,666,531 (“the ‘531 patent”). The Court grants the instant motion for summary judgment, finding that a reasonable fact-finder could not find infringement in this case.

I. BACKGROUND

In 1997, the Optical Storage Technology Association (OSTA) published version 1.50 of the Universal Disk Format (“UDF”) standard, a method by which a write-once recordable CD could be used like a re-writeable medium. [Compton, Decl. Ex. I. (UDF Specification).] UDF does not use a “track information map.” (Id.)

“Direct CD” and “Drag-to-Disc”, the accused products, are software applications that permit a user to employ the UDF 1.50 standard to write to a CD-R disc. Optima contends that the accused products infringe on the ‘531 patent because they use the UDF 1.50 standard. [Compton Decl. Ex. G, (Templemann Depo.) at 20:19-25.] A computer which reads or writes a UDF disc uses the technique of “indirection.” [Compton Decl. Ex. G, (Templemann Depo.) at 52:18-22.] (defining indirection as reference.) Through the technique of “indirection” files and directories on a disc are located by following a series of “pointers.” (Id.)

In the Markman hearing this Court found that the ‘531 patent “relates to a new October 6, 2005, recording technique that allows a standard recordable CD-ROM drive to appear to, and be accessed by, a user in the same manner as a non-volatile memory.” (Markman Order, p. 2.) The Court held that the ‘531 patent specification demonstrated that the patentee, acting as his own lexicographer, defined “track information map” as: “A data structure that is stored on the last use data blocks on the last packet of the track. It contains the start logical block address of the directory, and the start and end logical block address of every track.” (Id., p. 17.) Put another way, the track information map includes the

logical block addresses for the start of the directory, the start of every track on the CD, and the end of every track on the CD.

Sonic and Napster contend that the accused products do not infringe on the ‘531 patent either literally, or under the doctrine of equivalents. Further, Sonic and Napster argue that Optima’s theory of equivalents is barred by the “all elements” rule and by prosecution history estoppel.

Moreover, Sonic and Napster argue that they are entitled to summary judgment because the accused products do not route an operating system “directly” to the most recent versions of the files, as the ‘531 patent claims required, but instead the accused products route by “indirection.”

II. LEGAL STANDARD

Summary judgment will be granted if there is no genuine issue of material fact. Fed. R. Civ. P. 56(c). The burden initially is on the moving party to demonstrate an absence of a genuine issue of material fact. MEMC Electronic Materials Inc. v. Mitsubishi Materials Silicon Corp., 420 F.3d 1369, 1373 (Fed. Cir. 2005). If, and only if, the moving party meets its burden, then the non-moving party must produce enough evidence to rebut the moving party’s claim and create a genuine issue of material fact. Id. If the non-moving party meets this burden, then the motion will be denied. See generally, Bose Corp. v. JBL Inc., 274 F.3d 1354, 1360 (Fed. Cir. 2001). The Court will view the evidence in the light most favorable to the non-moving party. MEMC, 420 F.3d at 1373.

III. TRACK INFORMATION MAP

Optima asserts claims for both literal infringement and infringement under the doctrine of equivalents. Independent Claims 1 and 5 of the ‘531 patent both require the writing of a track information map (“TIM”).

A. LITERAL INFRINGEMENT

_____ “Literal infringement of a claim exists when every limitation recited in the claim is found in the accused device, i.e., when the properly construed claim reads on the accused device exactly.” Amhil Enterprises Ltd., v. Wawa, Inc., 81 F.3d 1554, 1562 (Fed. Cir. 1996). The Court finds that there is no literal infringement in this case.

In its Markman hearing the Court held that a track information map is located “on the last user data blocks of the last packet of the track, and contains the start logical block address of the directory, and start and end logical block address of every track.” (Markman Order, p. 17.) This data is used to find each record on the disc.

Sonic and Napster claim, and the Court agrees, that the solutions which the UDF 1.50 use and which the TIM concept uses to modify data already on a write-once medium, are completely different. [See generally, Compton Decl., Ex. I, UDF Specification.] To modify data already on a write-once medium, like a CD-R, the new data must be stored on a unwritten portion of a disc. [Compton Decl., Ex. H (Fry Depo.) at 52:22-53:10.] The UDF 1.50 uses a Virtual Allocation Table (“VAT”), which correlates virtual addresses with block addresses on the disc, to keep track of the locations of changing files. (Id.) The VAT is also a file which has a File Entry that points to it, known as the Information Control Block (“ICB”). Sonic and Napster assert, and the Court agrees, that the UDF file system does not include any information to discern the start or end addresses of every track on a CD. [Compton Decl., Ex. H, (Fry Depo.) at 101:5-21, 207:7-9.]

1. Last User Data Blocks of the Last Packet of the Track

The Court finds that the accused software products cannot write a TIM, because there is no structure equivalent to a TIM on the last user data blocks of the last packet of the track. In a UDF 1.50 file system, the only data structure that can occupy the last user data blocks of the last packet of the track is a VAT ICB, which does not contain information regarding tracks. [Compton Decl., Ex. H, (Fry Depo.) at 101:5-21, 164: 5-9, 207:7-9.] The VAT ICB contains a pointer to the VAT, or if the VAT is small enough, the VAT may be “embedded” in the same block as the VAT ICB. [Compton Decl., Ex. G (Tempelmann Depo.) at 50:18-51-

51:15.]

2. Start and End Logical Block Addresses of Every Track

Neither a VAT nor a VAT ICB can be a TIM because neither contain a list of start or end addresses for every track. [Compton Decl., Ex. H (Fry Depo.) at 108:5-11.] The last VAT in a track does contain the Logical Block Addresses for the File Entries of all the files on the track. (*Id.*, 109: 1-18.) However, the VAT does not contain information about what types of data is stored in those addresses, and cannot be used to determine whether an addresses represents a particular position on the track. [Compton Decl., Ex. H (Fry Depo.) at 47:8-48:12, 108:22-109:19.] The Court notes that “[e]ven when the VAT is embedded in the VAT ICB in the last block of the UDF track, that block will not contain a ‘track information map’ because neither the VAT nor the VAT ICB contains ‘the start and end logical block address of every track.’” (Jones Decl., ¶ 13.)

Optima, however, contends that the end address of the last UDF 1.5 track is the address of the last VAT ICB. (Opp’n, p. 7.) Specifically, Optima asserts that a linked list, a data structure which contains the end addresses of all previous UDF tracks, starts with the VAT ICB in the last block of the last track. (Optima, Ex. 1, ¶ 80.) Optima states that the linked list contains the locations of all previous VAT ICBs, including the VAT ICBs at the ends of all previous tracks. (*Id.*, ¶ 57.)

Despite Optima’s arguments to the contrary, the Court finds that neither a VAT or VAT ICB contain the start or end addresses for every track.

a. Start Logical Block Address of Every Track

Specifically, with respect to the start addresses of a UDF track, Sonic and Napster aver, and the Court agrees, that nothing in the accused software points to the start of any UDF track. On CD-R’s written by Direct CD or Drag-to-Disc, the “start address” of that track, the first block of any UDF track, will be occupied by an Anchor Volume Descriptor Pointer (“AVDP). [Compton Decl., Ex. H. (Fry Depo.) at 201:21-25, 202:13-25, 204:15-16; Jones Decl., ¶¶9-11.] However, there

is not a UDF data structure that contains the location of an AVDP. [Compton Decl., Ex. G (Tempelmann Depo.) at 52:11-17, 125:24-126:13, 129:5-130:2; Jones Decl. ¶ 10.]

Optima contends that the accused software contains a data structure which contains the start address of every track for purposes of the ‘531 patent. (Opp’n, p. 9.) Optima avers that the VAT ICB in the last block of the last track and the VAT to which it points or which it contains if the VAT is small enough, is the data structure which contains the start addresses of all UDF tracks. (Optima, Ex. 1, ¶ 80.) However, the Court finds Optima’s argument unavailing in light of the fact that there is not a UDF data structure that contains the location of an ADVP.

b. End Logical Block Address of Every Track

Sonic and Napster also contend, and the Court agrees, that nothing in the accused software points to the end of every UDF track. While the accused software writes VAT ICB’s at the end of the UDF tracks, it also writes VAT ICBs in various other locations within UDF tracks. (Jones Decl., ¶ 20-21.) Nothing in the VAT demonstrates whether the earlier VAT ICB is at the end of a track or elsewhere within the track. (*Id.*) There is no way of discerning which previous VAT ICB location fields point to the end of a track, and which do not. (*Id.*)

Additionally, Sonic and Napster state that a UDF file system does not contain a pointer to the VAT ICB that occupies the last recorded block of the most recent UDF track. (*Id.*, ¶ 15.) There is no VAT pointing to the final VAT ICB because the final VAT ICB is the list block written, and there are no data structures after it.¹ [Compton Decl., Ex. I (UDF Specification) at 27-28, § 2.2.10.]

B. DOCTRINE OF EQUIVALENTS

¹The presence of ISO 9600 tracks in the UDF system would also defeat literal infringement because the UDF system never writes a data structure that references the start or end addresses of ISO 9600 tracks.

Under the doctrine of equivalents, a device infringes “if every element in the claim is literally or equivalently present in the accused device.” Sage Prods., Inc. v. Devon Indus., Inc., 126 F.3d 1420, 1423 (Fed. Cir. 1997.) Moreover, two legal doctrines, the “all elements” rule and prosecution history estoppel, limit the determination of infringement under the doctrine of equivalents. Lockheed Martin Corp v. Space Sys., Loral, Inc., 324 F.3d 1308, 1318 (Fed. Cir. 2003.) The Court finds that there is no infringement of the ‘531 patent under the doctrine of equivalents.

1. Function-Way-Result Test.

The function-way-result test is one way to determine if an element in the accused product is equivalent to a claimed element. Overhead Door Corp. v. Chamberlain Group, 194 F.3d 1261, 1270 (Fed. Cir. 1999). Under this test, “an element in the accused device is equivalent to the claim element if it performs substantially the same function in substantially the same way to obtain substantially the same result.” (Id.; internal citations omitted.)

The Court finds that there is no infringement under the doctrine of equivalents, because the no structure or combination of UDF structures operates in substantially the same *way* as the TIM. (Jones Decl., ¶ 25.) With respect to the “way” element of the function-way-result test, Optima states that the TIM functions when “pointers to the root directory and the start and end of the latest version of every file.” [Compton Decl., Ex. F. (Optima’s Final Contentions) p. 102.] However, as Sonic and Napster state, such a formulation is inconsistent with the Court’s Markman construction, which finds that the pointers contained in the TIM are at the start and end address of every track, not the start and end of the latest version of every file. (Mot., p. 18.)

The TIM converts a file read operation requested by the user into the proper user data block on the disk. [Compton Decl., Ex. A (‘531 patent) at 5:31-42.] The “Recording Technique finds the recordable CD track where the logical block address of the start of the requested file resides by using the track information map track start and end logical block address information.” (Id.) Then the “logical block address” of the user data block is calculated by adding the Request logical

block addresses to the request logical block address subtracted by the Track Start logical block address, divided by the Packet Size. (Id.)

The value of the ‘Track Start logical block address’ is obtained by using the track information map to determine which track the requested block occupies, and thus which ‘Track Start logical block address’ is to be used in the formula [to calculate the logical block address of the user data block].” [Compton Decl., Ex. A (‘531 patent) at 5:35-45; Jones Decl., ¶ 26.] The TIM shows what the track start address of that block’s track is, and then the formula is used to determine the position inside the track. [Compton Decl., Ex. G. (Tempelmann Depo.) at 193:5-10; Jones Decl., ¶ 26.] Hence in order to be equivalent to the TIM, the accused software must work in substantially the same way, meaning a method by which the “track start logical block address” information is used to determine the address on the disc where a requested block number is stored.

Sonic and Napster claim that the accused software cannot use the formula in the ‘531 patent, because the formula cannot work unless the value of the packet size is constant across the whole disc, and the accused software write only variable-length packets. [Compton Decl., Ex. G (Tempelmann Depo.) at 190:7-9, 193:5-15.]

Optima counters that the formula in the ‘531 patent can work by using either fixed length packets or variable length packets. [Compton Decl., Ex. G. (Tempelmann Depo.) 284:10-285-10.] However, the Court finds persuasive the fact that the ‘531 patent states, “[o]nly the fixed type of packet will be used when describing the Recording Technique.” (Id.)

Additionally, Sonic and Napster stress, and the Court agrees, that the accused products cannot function in the same way as the TIM, because UDF file systems do not use information about “tracks” for any purpose. [Compton Decl. Ex. H (Fry Depo.) at 101:5-21, 207:7-9.] Significantly, UDF data structures cannot identify where a track begins or ends.

2. All Elements Rule

____ “Under the all elements rule, there can be no infringement under the doctrine of equivalents if even one limitation of a claim or its equivalent is not present in the accused device.” Lockheed Martin, 324 F.3d at 1321. Moreover, courts should rule that there is no infringement under the doctrine of equivalents if a finding of infringement under the doctrine of equivalents would entirely vitiate a particular claimed element. (Id.)

____ Sonic and Napster state that a technique for recording CD-R’s that makes an operating system recognize write-once discs and re-writeable discs must, upon an update of the disc, record a data structure to monitor which files are current, and which are obsolete due to modification or deletion. (Mot., p. 20.) With respect to the ‘531 patent, the TIM is that data structure. (Markman Order, p. 17.) Again, in the Markman hearing this Court held that the track information map must include “the start and end logical block address of each track.” (Id.) Therefore a UDF data structure, or combination of UDF data structures, cannot be equivalent to a track information map because UDF data structures do not reveal where tracks begin and end. [Compton Decl., Ex. H (Fry Depo.) at 101:5-21, 207:7-9; Jones Decl., ¶ 22.] Hence a finding that a UDF structure is equivalent to a TIM would entirely vitiate a particular claimed element.

3. Prosecution History Estoppel

____ “The touchstone of prosecution history estoppel is that a patentee is unable to reclaim through the doctrine of equivalents what was surrendered or disclaimed in order to obtain the patent.” Loral Fairchild Corp. v. Sony Corp., 181 F.3d 1322 (Fed. Cir. 1999). Further, there is no difference between the situation where the claim was amended to secure allowance, and the situation where the applicant files a limited and A broader claim, and cancels the broader claim when it has been rejected. Keith v. Charles E. Hires Co., 11 F.2d 46, 48 (2d Cir. 1940); Honeywell International Inc. v. Hamilton Sundstrand Corp., 370 F.3d 1131, 1142 n.8 (Fed. Cir. 2004).

Optima included eight claims that included the limitation “writing a track information map” and one claim, original claim five, that did not. [Compton Decl.,

Ex. M. (Original ‘531 Application) at 14.] Optima eventually cancelled original claim five. [Compton Decl., Ex. O. (Office Action Response) at 2.] Sonic and Napster aver that “issued claim 1 is essentially identical to original claim 5 plus the step of ‘writing a track of information map,’ and that Optima cancelled original claim 5 to obtain allowance of the other claims.” (Mot., p. 23.)

The Court finds that there is a question of fact as to the state of the art at the time of the abandonment of the claim. Sonic and Napster assert that prosecution history estoppel prevents Optima from reclaiming any ground that it surrendered by cancelling original claim 5. (*Id.*) Specifically, Sonic and Napster contend that Optima has given up the ability to claim that a data structure which is not literally a “track information map,” can nevertheless be equivalent to a “track information map.” (*Id.*) Optima argues that prosecution history estoppel does not apply because it is not trying to recapture a definition of the invention that does not include a TIM. (Opp’n, p. 19.) Optima avers that its position is that “the UDF 1.5 data structures created by the accused software are the function equivalent of the TIM,” and therefore it is not trying to recapture a definition of the invention which did not include a TIM (*Id.*, pp. 19,20.) Additionally Optima argues that even if the presumption of prosecution history estoppel arose, it would be “rebutted by evidence that the alleged equivalent would have been unforeseeable at the of the amendment,” because Optima’s ‘531 patent specification was written when the VAT and other UDF structures were not yet in existence. (*Id.*, p. 20.) However, because of the controverted facts above, the Court need not reach this issue.

III. DIRECT VERSUS INDIRECT ROUTING

A. Literal Infringement

The Court also finds that there is no literal infringement of the ‘531 patent because a UDF file system cannot route the operating system directly to the latest reversion of the file data, but claims 1 and 5 require that “an operating system accessing data stored [or information] on the CDROM is routed by the working directory directly to the latest version of such data [or information] on the CDROM.” [Compton Decl., Ex. A (Col. 6:20-22, 6:65-67.)].

A UDF file system references file data through a chain or pointers, or indirection. [Compton Decl. Ex. G. (Tempelmann Depo.) at 51:16-52:23; Compton Decl. Ex. I (UDF Specification) at 27, § 2.2.10; Jones Decl., ¶ 28.] The “File Entry” record for a file must first be read by the operating system in order to access file data. [Compton Decl., Ex. I. (UDF Specification) at 49, § 3.3.3; Compton Decl. H (Fry Depo.) at 98:1-23; Jones Decl., ¶¶ 28-29.] The File Entry record directs the operating system to each “extent” of data which is a portion of the complete file. (*Id.*) Additionally, the File Entry is referenced by the file’s File Identifier Descriptor (FID), contained in the data structure, and thus the File Entry is found through indirection. [Compton Decl. Ex. I. (UDF Specification) at 46, § 3.3.1; Compton Decl. H (Fry Depo.) at 41:11-24; 59:18-60:6.] Moreover, use of the VAT also involves indirection. [Compton Decl. Ex. I (UDF Specification) at 27, § 2.2.10.]

B. Infringement under the Doctrine of Equivalents

Additionally, as Sonic and Napster point out, accessing data through indirection is not equivalent to accessing data directly. The terms “indirectly” and “directly” are opposites, and opposites cannot, by definition, be the equivalent of each other. See generally Cooper Cameron Corp. v. Kvaerner Oilfield Prods., Inc., 291 F.3d 1317, 1322 (Fed. Cir. 2002).

IV. CONCLUSION

While equivalence is generally a factual matter reserved for the fact finder, the record here permits the Court to grant summary judgment on both the literal and equivalence theories because no reasonable fact finder could find infringement.